

What Is Claimed Is:

1. A fuel injection system for an internal combustion engine, in particular a diesel engine, having at least two cylinders, the fuel injection system having at least two actuator elements and at least one actuator element being assigned to each cylinder for the injection of fuel into the cylinder, and the fuel injection system having an injection control system for monitoring and/or resolving a conflict in the triggering of the actuator elements, wherein the injection control triggers the actuator elements as a function of predefinable time intervals (strategic lead) that are a function of the trigger characteristic of the actuator elements.
2. The fuel-injection system as recited in Claim 1, wherein the actuator elements are piezoelectric elements.
3. The fuel-injection system as recited in Claim 1, wherein the actuator elements are solenoid valves.
4. The fuel injection system for an internal combustion engine, in particular a diesel engine, having at least two cylinders, the fuel injection system having at least two piezoelectric elements and at least one piezoelectric element being assigned to each cylinder for the injection of fuel into the cylinder via charging or discharging of the piezoelectric element, and a single supply unit being assigned to the piezoelectric elements for charging or discharging the piezoelectric element, where the fuel injection system has an injection control system for monitoring possible overlap of a time interval during which a piezoelectric element is to be charged or discharged with a time interval during which the other piezoelectric element is to be charged or discharged, and at least two injections have different priorities assigned in such a way that one injection is assigned a higher priority (high-priority injection) than at least one other injection (low-priority injection), wherein the injection control

shortens the at least one injection having the lower priority by a predefinable time interval (strategic allowance) as a function of the time characteristic of the charging and discharging of the piezoelectric element, in such a way that a piezoelectric element is not charged when the other piezoelectric element is to be charged or discharged.

5. The fuel-injection system as recited in Claim 4, wherein the injection control shifts the at least one injection having the lower priority by a predefinable time interval (strategic allowance) which is a function of the time characteristic of the charging and/or discharging of the piezoelectric element, to such an extent that the time interval in which a piezoelectric element is to be charged or discharged does not overlap with the time interval in which the other piezoelectric element is to be charged or discharged.

6. The fuel-injection system as recited in Claim 4 or 5, wherein the time characteristic of the strategic allowance is a function of the duration of the edge of the high-priority and/or the low-priority injection (active time) and a predefinable dynamic interval.

7. The fuel-injection system as recited in Claims 4 through 6, wherein the injection of fuel is implemented by at least two of the following injections: at least one pre-injection, at least one main injection, at least one post-injection.

8. A method for operating a fuel injection system for an internal combustion engine having at least two cylinders, in particular for operating a fuel injection system according to one of the preceding claims, the fuel injection system having at least two actuator elements, and at least one actuator element being assigned to each cylinder for the injection of fuel into the cylinder, and possible conflicts in the triggering of the actuator elements being monitored and/or resolved, wherein the monitoring is implemented as a function

of the time characteristic of the charging and/or discharging of the piezoelectric element in an injection having a higher and/or lower priority.

9. The method for operating a fuel injection system for an internal combustion engine having at least two cylinders, in particular for operating a fuel injection system as recited in one of Claims 4 through 7, the fuel injection system having at least two piezoelectric elements and at least one piezoelectric element being assigned to each cylinder for the injection of fuel into the cylinder via charging or discharging of the piezoelectric element, and a single supply unit for charging or discharging the piezoelectric element being assigned to the piezoelectric elements, monitoring being carried out to determine whether a time interval, during which one piezoelectric element is to be charged or discharged overlaps with a time interval during which the other piezoelectric element is to be charged or discharged, wherein it is monitored whether in a low-priority injection the charging or discharging occurs within a predefined time interval around the time of charging or discharging of a higher priority injection, the time interval being a function of the time characteristic of the charging/discharging of the injection having higher and/or lower priority.